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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,225	02/15/2002	Junichi Tanii	44084-507	7835
20277	7590	08/04/2006	EXAMINER	
MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			VIEAUX, GARY	
			ART UNIT	PAPER NUMBER
			2622	

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/075,225	Applicant(s) TANII ET AL.	
	Examiner Gary C. Vieaux	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
 4a) Of the above claim(s) 16 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Change of Examiner

The prosecution of this application has been transferred to Examiner Gary C. Vieaux from the docket of Examiner Brian J. Jelinek. Any inquiry concerning this Office Action or earlier communications should be directed to the current Examiner of record. Current contact information is provided in the last section of this communication.

Amendment

The Amendment, filed May 18, 2006, has been received and made of record. In response to the most recent Office Action, dated December 1, 2005, claims 1-3, 17 and 18 have been amended. Claims 16 and 19 have been previously withdrawn from consideration as being directed to a non-elected species.

Response to Amendment

Regarding the objections to claims 1-3, Applicant has amended the claims to correct previously indicated informalities. Therefore, the objections to claims 1-3 are hereby withdrawn.

Regarding the 35 U.S.C. §101 rejection of claim 17, Applicant has amended the claim in order to be directed to statutory subject matter. Therefore, the 35 U.S.C. §101 rejection to claim 17 is hereby withdrawn.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive.

Regarding claim 1, Applicant asserts that neither the O'Mahony reference (US 5,986,703) nor the Okisu reference (US 6,449,004) disclose obtaining an image of a main object with an image sensor during image capture, where the main object is directly in front of and not offset of the image sensor during image capture (Remarks, p. 9-10.) The Examiner respectfully disagrees.

To begin, no patentable weight is given to the amended limitation of a main object being "not offset of the image sensor" (see the *35 USC § 112, first paragraph* rejection to claim 1, infra.) As to a main object being directly in front of the image sensor during image capture, the O'Mahony reference clearly discloses a main object being "directly in front of" the image sensor during image capture (fig. 2.) The Okisu reference also clearly discloses a main object being "directly in front of" the image sensor during image capture (figs. 3, 6 20, and 30.) Based on the foregoing, the Examiner respectfully maintains the 35 U.S.C. § 102 rejections to claim 1.

Regarding claims 2-15, each depend either directly from or indirectly from independent claim 1, and thus inherit all the limitations of independent claim 1. Consequently, based on their dependence and the foregoing response to arguments relating to claim 1, the Examiner respectfully upholds the 35 U.S.C. § 102 rejections to claims 2-15.

Regarding claims 17 and 18, although the wording is different, the material is considered substantively equivalent to claim 1, as discussed above. Therefore, the

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Examiner respectfully upholds the 35 U.S.C. § 102 rejections to claims 17 and 18, respectively.

Claim Rejections

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-15, 17, and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Independent claims 1, 17, and 18 include the amended limitation of a main object being directly in front of and not offset of the image sensor during image capture (Response p. 2, lines 4-5 of claim 1; p. 5 lines 5-6 of claim 17; and p. 6 lines 4-5 of claim 18.) The Specification was not found to include support for this limitation.

After review of the application, nowhere within the disclosure was subject matter found to fully support the main object being directly in front of and not offset of the image sensor during image capture (emphasis added by Examiner), as recited in amended claims 1, 17, and 18, which would reasonably convey to one skilled in the

relevant art that the inventors had possession of the claimed invention at the time the application was filed, as required by 35 U.S.C. 112, first paragraph.

Claims 2-15 depend either directly or indirectly from independent claim 1, and therefore contain and include all limitations associated therewith.

For purposes of examination of the claims on their merits, no patentable weight is given to the amended limitation of a main object being "not offset of the image sensor".

Applicant is also reminded that the prompt development of a clear issue requires that the replies of the applicant meet the objections to and rejections of the claims. Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP § 2163.06 and MPEP § 714.02.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-4, 6-8, 10-15, and 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Mahony (U.S. 5,986,703.)

Regarding claim 1, O'Mahony discloses a digital photographing apparatus comprising an image sensor that obtains an image of a main object (fig. 6 element 80),

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and an image corrector that corrects image warp, wherein the main object is directly in front of the image sensor during image capture (fig. 2), and the image corrector correcting image warp caused by a three-dimensional configuration of the main object due to the close proximity between the main object and the image sensor (fig. 2., fig. 6 element 88, col. 5 lines 20-31.)

Regarding claim 2, O'Mahony teaches the image corrector corrects image warp caused by the three-dimensional configuration of the main object due to the fact that the image of the main object occupies a large percentage of an overall image, as well as due to the close proximity between the main object and the image sensor (col. 5 lines 20-31.)

Regarding claim 3, O'Mahony discloses the image corrector enlarges peripheral areas of the image relative to the center area (fig. 2., fig. 9 element 104.)

Regarding claim 4, O'Mahony discloses the image corrector divides the image into multiple sections and enlarges the multiple sections using an enlargement rate corresponding to each section (figs. 5 and 8A-8E.)

Regarding claim 6, O'Mahony discloses a detector that detects the size of the image of the main object relative to the overall image and determines based on this size whether or not correction by the image corrector is needed (col. 6 lines 12-59.)

Regarding claim 7, O'Mahony discloses (i) a distance measuring device that measures the distance from the image sensor to the main object (fig. 6 element 84), and (ii) a detector that determines based on this distance whether or not correction by the image corrector is needed (fig. 6 element 88; fig. 8C.)

Regarding claim 8, O'Mahony discloses the image corrector performs correction in accordance with the correction level selected from among multiple correction levels, each representing a degree of correction (figs. 8A-8E.)

Regarding claim 10, O'Mahony discloses (i) a detector that detects the size of the image of the main object relative to the overall image, and (ii) a selector that selects a correction level based on this size (col. 6 lines 12-59).

Regarding claim 11, O'Mahony discloses (i) a distance-measuring device that measures the distance from the image sensor to the main object (fig. 6 element 84), and (ii) a selector that selects a correction level based on this distance (fig. 6 element 88; figs. 8A-8E.)

Regarding claim 12, O'Mahony discloses a display that indicates that correction was performed by the image corrector (fig. 1 elements 16 and 28) because the display displays the corrected image.

Regarding claim 13, O'Mahony discloses a data generator that generates correction data that indicates the contents of the correction carried out by the image corrector (fig. 6 element 88.)

Regarding claim 14, O'Mahony discloses a memory that stores the corrected image data together with the image data (fig. 6 element 88) because the corrected image comprises the correction data.

Regarding claim 15, O'Mahony discloses the image corrector performs correction to the image data stored in the memory (fig. 6 element 80) based on the correction data (fig. 6 element 88.)

Regarding claim 17, O'Mahony discloses a computer program that causes a computer to execute image processing (fig. 10 element 110), said computer program product comprising a computer readable storage medium having a computer program stored thereon for performing the steps of preparing image data of a main object captured via an image sensor, the main object being directly in front of the image sensor during image capture (fig. 10 element 114; fig. 2) and correcting, by processing the image data, image warp caused by a three-dimensional configuration of the main object due to the close proximity between the main object and the image sensor during image capture (fig. 10 element 120.)

Regarding claim 18, O'Mahony discloses an image processor comprising a memory that stores image data of a main object captured via an image sensor (fig. 6 element 80), and an image corrector that corrects, by processing the image data, image warp, wherein the main object is directly in front of the image sensor during image capture (fig. 2), and caused by a three-dimensional configuration of the main object due to the close proximity between the main object and the image sensor during said image capture (fig. 6 element 88).

Claims 1, 5, and 8-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Okisu et al. (U.S. 6,449,004.)

Regarding claim 1, Okisu discloses a digital photographing apparatus comprising: an image sensor that obtains an image of the a main object (fig. 1), and an image corrector that corrects image warp (fig. 13 OPC Calculation Unit), wherein the

main object is directly in front of the image sensor during image capture (figs. 3, 6 20, and 30), and the image corrector corrects image warp caused by a three-dimensional configuration of the main object due to the close proximity between the main object and the image sensor (fig. 13 OPC Calculation Unit.)

Regarding claim 5, Okisu discloses a receiving device that receives from the operator a command to initiate correction by the image corrector (fig. 1 element 14.)

Regarding claim 8, Okisu discloses the image corrector performs correction in accordance with the correction level selected from among multiple correction levels, each representing a degree of correction (fig. 2 indicator 11A.)

Regarding claim 9, Okisu discloses a receiving device that receives the operator's selection of a correction level from among the multiple correction levels (Fig. 2 indicator 11A.)

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 571-272-7318. The examiner can normally be reached on Monday - Friday, 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen T. Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gcv2


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